

# Highlights of *How to Reduce Your Energy Costs*



Government



Institutions

# 10 Ways to Save Energy

1. Turn off lights when not needed.
2. Remove unneeded light bulbs.
3. When replacing bulbs, use lower wattage or more efficient ones.
4. Lower your heating settings.
5. Raise your air conditioning settings.
6. Reduce heating and air conditioning during unoccupied hours.
7. Turn off heating and air conditioning somewhat before the end of your operating hours.
8. Have your heating, ventilating, and air conditioning systems serviced and adjusted.
9. Turn off machines and equipment when not needed.
10. Make sure all automatic controls are in good working condition and are set properly.

## Some Recommended Lighting Levels

Lighting Level (footcandles)	Examples of areas
1-5	Outdoor walkways
5-10	Cafeteria dining areas
10-20	Reception areas, lightly used office areas
20-50	Typical office work
50-100	More demanding visual tasks (office or shop)
100-200	Especially difficult visual tasks- low contrast

You can save money by replacing inefficient lamps with energy-efficient lamps even before the old ones burn out!

## 2 Ways to Waste Lighting Energy

1. Transmission losses- when dirt or some other obstruction blocks some of the light; or when the light source is too far away from what you want illuminated.
2. Over lighting- when more light is used than is needed or when a "free" light source such as daylight is not used.

## 3 Ways to Save Lighting Energy

1. Reduce light levels whenever there is more light than needed.
2. Install more efficient lighting or controls.
3. Do proper maintenance to minimize light losses.

## Tips for Operating your HVAC Efficiently

For heating, set thermostats lower and higher for cooling.  
Eliminate unnecessary use of your HVAC system during unoccupied hours.  
Have someone test, clean, and adjust your boiler or furnace.  
Have your air conditioner, heat pump, and chiller properly maintained.  
Reduce fan speeds.

South Carolina's average electricity cost per kWh is \$.585.

## Maintainence of your Envelope System

1. Seal cracks with caulking or other materials.
2. Tighten up window and door frames.
3. Replace broken glass.
4. Fix doors and windows to operate properly.
5. Adjust, replace, or install automatic door closers.
6. Cover window air conditioners in cold weather.

**Electric motors account for about three quarters of total electricity use in industry and half of the electricity use in commerical and institutional buildings.**

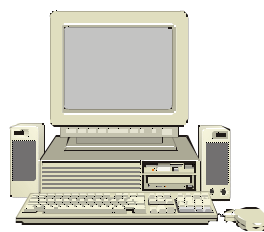
## Hot Water: Major Ways to Save

- \*Reduce the heat loss in the system.
- \*Reduce the temperature of the hot water; it is often much hotter than necessary.
- \*Reduce the amount of hot water used.
- \*Reduced the time the water heater operates.
- \*Maintainence.

**Envelope your building properly by stopping infiltration, reducing heat transfer, controlling the humidity in the building and controlling the amount of sunlight in the building.**

## 12 Basic Rules for Reducing Energy Consumption by Machines

1. Turn it off whenever possible.
2. Don't forget the "hidden" machines and equipment, such as computers and photocopiers.
3. Adjust controls to a temperature, speed, or other setting that uses less energy by still does the job properly.
4. Use your equipment more efficiently.
5. Clean, tune and adjust, lubricate, replace worn parts, and otherwise maintain the equipment.
6. Don't create unnecessary problems.



7. Manage your electricity use to avoid high demand charges.
8. When equipment that is worn out must be replaced, choose the most energy-efficient replacement.
9. If cost-justified, do a major overhaul to make equipment more energy efficient.
10. If cost justified, replace equipment that still operates, with more energy-efficient equipment.
11. Install new automatic controls.
12. Consider using waste heat to advantage.